

Final Report of the Steering Committee on the HSCRC Quality Initiative to the HSCRC

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Introduction

For several years, the Maryland Health Services Cost Review Commission (HSCRC) has informally discussed the issue of linking hospital reimbursement with the concept of health care quality. Even though health care quality has moved from a “back page” to a “front page” issue over the last few years, a clear cut template has yet to be developed to implement a pay-for-performance system. In an attempt to solicit input from available expertise and knowledge on quality initiatives and pay-for-performance proposals and arrangements nationally, the HSCRC established a Steering Committee to issue recommendations on how such a concept may operate under the Maryland hospital rate setting system (Roster is shown in Attachment I). The Commission felt that, given the level of exposure that quality issues have received nationally in recent years, Maryland has a unique opportunity to implement a pay-for-performance system that would apply across all Maryland hospitals and all payers.

The Commission has asked the Steering Committee to report on suggestions on guidelines and parameters for a Maryland hospital pay-for-performance concept. This Steering Committee report provides background on quality initiatives around the country, makes specific recommendations on how a system could be fashioned, and suggests a strategy for implementation.

Background

The issue of quality in health care has been considered for many years, but a series of Institute of Medicine (IOM) reports made the issue front-page news. A 1999 IOM report, *To Err is Human: Building a Safer Health System*, found that up to 98,000 Americans die every year from preventable medical errors in hospitals.¹ In 2000, a subsequent IOM report confirmed the findings of the 1999 report and urged greater focus, research, leadership, and expectations regarding health care quality and patient safety.² The recommendations set forth in the 2002 IOM report entitled *Crossing the Quality Chasm: A New Health System for the Twenty-first Century*, went beyond medical errors and brought the quality issue to the forefront.³ This report offers ten rules or principles intended to make the health system more responsive to patients' needs and preferences and to encourage patient participation in decision-making. These rules also are intended to promote the development of systems that are consciously and carefully designed to be

¹ L.T. Kohn, J.M. Corrigan, and M.S. Donaldson, eds., *To Error is Human: Building a Safer Health System* (Washington: National Academy Press, 1999).

² Thomas, E.J., D.M. Studdert, H.R. Burstin, E.J. Orav, T. Zeena, E.J. Williams, K.M. Howard, P.C. Weiler, and T.A. Brennan. 2000. Incidence and Types of Adverse Events and Negligent Care in Utah and Colorado.[Comment]. *Medical Care* 38 (3):261-71.

³ Institute of Medicine, *Crossing the Quality Chasm: A New Health System for the Twenty-first Century* (Washington: National Academy Press, 2001).

safe, anticipate patient needs, promote cooperation among clinicians, use resources wisely, and make information available on quality and safety performance. The ten rules are:

1. Care is based on continuous healing relationships;
2. Care is customized according to patient needs and values;
3. The patient is the source of control;
4. Knowledge is shared and information flows freely;
5. Decision making is evidence-based;
6. Safety is a system property;
7. Transparency is necessary;
8. Needs are anticipated;
9. Waste is continuously decreased; and
10. Cooperation among clinicians is a priority.

These reports do not specifically criticize how clinicians provide care but emphasize the need for systems as a check on the provision of services. They emphasized the fact that current systems tend to provide rewards for poor quality since payment is the same regardless of the outcome. Reports such as these have fostered a myriad of activities by private and public organizations that have laid the groundwork for methods to improve the quality of patient care. There is clearly a convergence of forces striving for quality. Federal and state agencies, private and public payers and other organizations are working toward the same goal. Quality measures are now being used by health plans, payers, physician groups, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), and by the Medicare program to encourage quality performance.

The National Committee for Quality Assurance (NCQA) has issued a widely used set of performance indicators for health plans. The National Quality Forum (NQF) has brought stakeholders together to develop performance measures and best practices for various clinical conditions. The Agency for Healthcare Research and Quality (AHRQ) has been instrumental in developing and brokering evidence-based performance indicators for hospitals and other providers. The Leapfrog Group, representing many large private and public health purchasers that provide benefits to about 34 million Americans, has tied reimbursement to a series of performance indicators including the use of a computer-based physician order entry (CPOE) system, the referral patterns to hospitals with high performance scores for complex medical procedures, and the level of ICU staffing (see Attachment II). In addition, JCAHO has been incorporating quality elements in its hospital accreditation process and the American Hospital Association, Federation of American Hospitals, and Association of American Medical Colleges have been collaborating with NQF, CMS, AHRQ, and JCAHO since 2002 on a quality reporting initiative.

The pay-for-performance concept most analogous for the Commission's consideration is Medicare's recently announced Hospital Quality Incentive Demonstration Project. This three-year demonstration project (in Federal Fiscal Years 2004, 2005 and 2006) is available to hospitals participating in *Premier's Perspective Online* quality measurement system. Premier is an alliance of 200 hospitals and

healthcare systems nationally and provides various resources to approximately 1,500 hospitals, including the bulk purchasing of equipment and supplies. *Premier's Perspective Online* is a database in which cost and quality information is collected and stored, and from which results can be comparably assessed.

The purpose of the CMS demonstration project is to improve the quality and efficiency of patient care. Participation by hospitals is voluntary for the first two years of the project. Bonuses will be based on process and outcome measures associated with the following clinical conditions (the actual measures for each condition are shown in Attachment III):

- Acute Myocardial Infarction (AMI);
- Coronary artery bypass graft (CABG);
- Heart Failure (HF);
- Community-acquired pneumonia (CAP); and
- Hip and knee replacement.

Bonuses will be provided to hospitals performing in the first and second decile (top 10 and 20 percentile) in each clinical area. Hospitals in the top 10% in a clinical area will receive an increase of 2% to their Medicare base rate in that clinical area. Likewise, hospitals in the next decile (11th to 20th percentile) will receive a 1% bonus. Scores will also be calculated at least annually and bonus payments will be made annually on a lump sum basis. The scores will be publicly reported. Medicare expects to pay \$7 million per year in bonuses and \$21 million over the course of the demonstration project. During the third year of the project, low performers will be subject to a 1% or 2% reduction in payment.

Commission staff has communicated with CMS officials that administer Maryland's Medicare Waiver and other CMS officials that are working on the Premier demonstration project to confirm whether the two demonstration projects can coexist. Commission staff received confirmation that Premier hospitals in Maryland may participate in the demonstration project. Any bonuses provided to Maryland hospitals under the Premier project will be provided as a separate and distinct payment and reported as such. Such bonuses will not, therefore, be accounted for under the HSCRC's charge per case system, nor in the Inter-hospital Cost Comparison analysis (ICC for full rate reviews) or Reasonableness of Charges report (ROC for spenddowns). Nonetheless, Commission and CMS officials will need to have further discussions on the manner in which reductions in payments could be implemented in the event that Maryland hospitals are to receive reduced reimbursement due to low performance on the CMS measures in the third year of the project.

Quality in Maryland

The move toward hospital quality assessment and reporting has been more evident in Maryland than in most states. The Maryland Hospital Association (MHA) Quality Indicator Project and the MHCC and HSCRC Hospital Performance Evaluation

Guide have propelled Maryland “ahead of the curve” on quality performance evaluation and reporting.

The MHA Quality Indicator (QI) Project began in Maryland in 1985 but now is used as a hospital information source nationally and internationally. The QI project provides a resource for data collection and information sharing among 1,200 participants across four indicator sets: acute care, psychiatric care, long-term care, and home care. While information is voluntarily collected and maintained internally, results and findings are shared among the participants as comparative feedback, providing participants access to educational and analytical tools and services to improve quality of care. A list of the acute care indicators for which data are collected under MHA’s project can be found in Attachment IV.

Legislation passed by the Maryland General Assembly in 1999 (Chapter 657 of the Laws of 1999/House Bill 705) required MHCC to develop and implement a system to compare the quality and performance of Maryland hospitals. In response to this mandate, MHCC formed a Steering Committee that issued a series of recommendations concerning what a Performance Guide should include and how the data should be reported.

In the Fall of 2001, MHCC contracted with the Delmarva Foundation to develop and implement recommendations of the Steering Committee for producing the Guide. As Medicare’s Quality Improvement Organization (QIO) for Maryland, Delmarva has an extensive network of relationships with Maryland hospitals and other interested parties. In addition to reporting on hospital performance, Delmarva’s expertise on quality improvement has also enabled it to help hospitals improve in areas where their performance may have been less than satisfactory.

The quality core measure sets that are reported in the MHCC and HSCRC Hospital Performance Evaluation Guide include Heart Failure (four measures) and Community Acquired Pneumonia (five measures). The Acute Myocardial Infarction (heart attack) measure set has also been approved for inclusion and will appear in the Guide in the fall of 2004. The core set of measures is listed below:

- Congestive Heart Failure
 - Rate of performing the recommended heart function test
 - Rate of giving the recommended medication
 - Rate of giving full instructions when one leaves the hospital
 - Rate of providing advice or counseling on how to stop smoking
- Community Acquired Pneumonia:
 - Rate of measuring the oxygen levels in blood
 - Rate of performing the recommended blood test
 - Rate of giving antibiotics in a timely fashion
 - Rate of providing advice or counseling on how to stop smoking
 - Rate of providing screens or vaccination for Pneumococcal Disease (to be reported in the 2004 report)

The quality measures reported in the Guide are also approved and used for quality improvement purposes by the JCAHO, CMS, AHRQ, American Hospital Association

(AHA), Federation of American Hospitals (FAH), Association of American Medical Colleges (AAMC), and others. In September 2003, the National Quality Forum (NQF) reached consensus on the appropriateness of the above measures based on the following screening criteria:

- Importance- The measure must impact a sufficient number of people presenting/at risk for the condition and there should be demonstrated variation in quality based on demographics, insurance coverage, or other factors.
- Scientifically Acceptable – The measures must be precisely specified, reliable, valid, adaptable, risk adjusted (where necessary), and have evidence linking the measure to patient outcomes.
- Usable – The intended audiences should be able to understand the results of the measures and find them useful in decision making.
- Feasible – Implementation of the measure should be practicable based on factors such as available data sources, established auditing strategies, and assessment of confidentiality, cost, and administrative burden issues.

The measures currently reported have met the above criteria. The NQF recommended several other measures that fit the above criteria that are not currently reported in the Guide. The Hospital Performance Evaluation Guide Steering Committee is currently considering these additional measures including AMI, Obstetrics, patient safety and patient satisfaction measures.

The initial collection was not released to the public but provided to the individual hospitals in 2002. The MHCC first released the results of the core measure evaluation in mid- 2003 for public consumption.

The data are collected by all Maryland hospitals using a variety of software packages that have been standardized to meet both the JCAHO ORYX[®] requirements and the CMS QualityNet Exchange (QNet) requirements. QNet is a federally sponsored national data clearinghouse that collects data from hospitals throughout the country. Most hospitals use an approved vendor to transmit their data to JCAHO and QNet although they have the option of transmitting data directly to either source. Hospitals usually opt to use vendors to take advantage of the various reporting packages and to eliminate the need to hire programming staff to keep track of the programming changes required to update the measures.

In most instances, the vendor provides the hospital with software that facilitates Web-based data collection and transmission capabilities. The software imports data from the UB-92 or other billing sources into an abstract that allows the user to enter data into the remaining core measure fields either manually or through a file import. The system identifies cases that are subject to reporting based on the ICD-9 codes reported on the UB-92. In many cases, a large percentage of the required reporting elements are preloaded into the abstract from the UB-92. The user must then complete the abstract by reviewing the medical record to answer questions that can't be obtained from the administrative data. For example, the user must answer yes, no, or not documented to questions such as "Was the patient prescribed an ACE inhibitor on discharge?" Hospitals

can abstract information for themselves as frequently as they choose; however, they must transmit to the vendor at least quarterly. Prior to transmitting, the system performs a series of edits on the abstracted data to identify potential data entry errors such as invalid discharge codes or missing core measures data. Hospitals then correct any data entry errors and transmit the data to the vendor. Each case is then assigned a unique identifier. The vendor is responsible for transmitting the data to JCAHO and QNet. MHCC's contractor, the Delmarva Foundation for Medical Care (Delmarva), retrieves the data from QNet for purposes of public reporting in the Guide (see Attachment V for a diagram of data collection process).

At the onset of the project, Delmarva conducted extensive data validation to ensure accuracy of the submitted data. A total of 30 cases were randomly selected from each hospital for auditing. Delmarva conducted onsite review of the sample of cases by re-abstracting the medical records. Hospitals with an 80% or greater agreement rate were found to be acceptable for public reporting. Hospitals with less than an 80% agreement rate were targeted for review of an additional 60 cases. There were no hospitals requiring targeted review.

Currently, data validation for measures reported in the Guide is an ongoing process. Data submitted to QNet are audited on a quarterly basis by the federally-sponsored Clinical Data Abstraction Center (CDAC). The auditing is conducted through chart validation. Each quarter, all hospitals submitting abstracted data have a random sample identified. The CDAC then requests a hard copy of the medical record for the identified sample and re-abstracts the chart. Hospitals receive feedback including an overall reliability rate and case details on each abstraction. Hospitals with a significant number of errors that exceed the predetermined threshold are contacted by Delmarva, on behalf of MHCC, for corrective action.

The MHCC is also engaged in the development of a patient safety system in Maryland and the examination of patient satisfaction measures. The Commission has recommended that a three-pronged approach be taken to address patient safety issues in Maryland:

1. The establishment of a Maryland Patient Safety Center as a means to share information between facilities without the fear of reprisal and to exchange ideas on how to address adverse events and approved processes of care.
2. Use the State's regulatory authority to promote data and advanced technology systems improvement.
3. Implement hospital patient safety programs and limited mandatory reporting to the Department of Health and Mental Hygiene.

HSCRC Initiative

Since its inception, the HSCRC has focused its energy primarily on hospital costs, payments, financial performance, access and efficiency. By virtue of its desire to consider a pay-for-performance system, it is clear that the Commission recognizes that in

today's health care environment the analysis of access and costs should not be divorced from the analysis of quality.

In the Spring of 2003, the Commission asked the staff to begin to examine pay-for-performance concepts and make recommendations on how such a system might operate under Maryland's unique hospital rate setting system. Over the succeeding months, staff began to review relevant literature on health care quality and patient safety and met with representatives of organizations engrossed in the topic. In depth discussions ensued with representatives of CMS, AHRQ, MHCC, NCQA, MHA, the Delmarva Foundation, Johns Hopkins School of Public Health, and the University of Maryland School of Pharmacy. Moreover, staff has attended conferences and demonstrations and have been involved with the MHCC report card workgroups and the Maryland Patient Safety Coalition.

In October 2003, the Commission established the HSCRC Quality Initiative Steering Committee to identify issues and lay the groundwork for a pay-for-performance system for Maryland hospitals. The Steering Committee held three meetings and conducted numerous conference calls at which there was considerable discussion regarding mission, vision and goals statements for the Initiative, how major issues should be addressed, a prospective time line for the project, and how pay-for-performance could be administered in Maryland. A summary of Committee responses can be found in Attachment VI.

Findings and Recommendations

The AHRQ defines quality health care as doing the right thing at the right time in the right way for the right person and having the best results possible. The IOM defines quality as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge". Quality health care has been a difficult concept to define; however, as each day goes by, the once amorphous concept becomes more clear - and the pace of progress continues to quicken. Due to the dedication and energy of many organizations to this cause and the stature of clinical research and evidence-based studies, the level of quality assessment has improved tremendously over the past few years. Nonetheless, health care quality tends to be defined by the various indicators that measure it, however perfect or imperfect. What is clear, is that the delivery of high quality health care involves the convergence of quality care, access to appropriate care, and cost. The Maryland system, under the authority of the HSCRC and MHCC, is unique in the ability to affect all three of these elements in a broad manner.

Threshold Question

The most fundamental of the pertinent issues considered by the Steering Committee was whether it is feasible and/or desirable to implement a pay-for-performance system for Maryland hospitals at this time. **While the perfect tool is not available to measure the quality of patient outcomes, the Steering Committee finds that the state of the art is such that there is considerable comfort in assessing quality**

based on available indicators and that it is feasible and desirable to commence with a pay-for-performance concept for Maryland hospitals as soon as reasonably possible.

The major issues were considered and have been categorized under the following headings: incentive program or reward program, measures and indicators, data collection, scoring of measures, administration of Initiative, and Commission Funding Issues.

Mission, Vision and Goals of the Quality Initiative

The Steering Committee agreed on the Mission, Vision and Goal statements for the Initiative. The Committee felt that it was essential for the statements to be broad enough to be flexible over time but explicit enough to set the tone for the work that needs to be done to accomplish the stated vision. **The Committee recommends that the Commission adopt the following as the mission, vision and goals of the HSCRC Quality Initiative:**

- **The mission of the HSCRC Quality Initiative is to use the Commission's authority over hospital rates and revenue to improve the quality of patient care and the efficiency and effectiveness of services provided at Maryland hospitals by providing financial support and rewards/incentives.**
- **The vision of the HSCRC Quality Initiative is a health care environment where Maryland hospitals provide high quality patient care in an efficient manner.**
- **The goals of the HSCRC Quality Initiative are:**
 - **to work with Maryland hospitals to enhance the quality of patient care by providing financial support and rewards/incentives consistent with evidence-based health services research;**
 - **to select and maintain a set of measures that appropriately reflect the delivery of quality health care services provided at Maryland hospitals;**
 - **to collect data that will support the generation of accurate and reliable quality measures;**
 - **to better understand the relationship between quality and cost; and**
 - **to become a model for enhancing health care quality in the hospital setting while being consistent with broader quality initiatives.**

With these in mind the Steering Committee addressed the following somewhat more specific issues to provide the Commission with some guidance in the pursuit of the vision and goals set forth above:

Incentive Program and/or Reward Program

Under a pay-for-performance system, providers that perform well on an objective scoring system of measures that reflect health care outcomes receive additional funding or reimbursement. The first question related to this issue is whether it is appropriate to provide the incentives or rewards to the hospitals who perform the best or is it appropriate to provide the incentives or rewards to hospitals that may need it the most - those that score among the lowest under the scoring system?

In considering how available funding for quality could be distributed, for the purposes of this report, the Steering Committee considered three separate and distinct concepts – rewards, incentives and financial support.

Reward Program - For the purpose of this report, a reward program is one that provides additional funding to those hospitals that perform the best during each scoring period. A threshold would be set and those exceeding the threshold would receive a financial award or bonus. For example, a threshold could be set in a manner that provides a predetermined reward for hospitals that exceed 90% scores (or compliance) on a single measure or a composite of measures. The CMS demonstration project, which provides “bonuses” for hospitals scoring within a certain decile, represents an example of a reward system.

Incentive Program - An incentive program is considered one that would encourage hospitals to continue to improve over time. Under this concept, the best performing hospitals may not receive an increase in funding but instead those who improve the most on a percentage basis over time would. The intent of such a program would be to improve the average scores of all hospitals. For example, a threshold percentage may be set where any hospital improving on individual scores or a composite of scores by more than 20% from one year to another would be eligible for a predetermined financial incentive. Under an incentive program, participants that have very high scores at the outset may find it difficult to reach the threshold.

Financial Support - For the purpose of this report, the concept of infrastructure support is one where funding is provided to hospitals that demonstrate that they are efficient but do not have the infrastructure and resources to provide a reasonable level of quality health care. Such funding would be provided prospectively and would be intended to improve systems that support quality health care services. The use and benefit of such funding should be closely tracked.

The Steering Committee Recommends that any funding that the Commission makes available for the Quality Initiative be divided in three ways – for rewards, incentives and financial infrastructure support. A portion of the funding should be provided to hospitals that perform above a set threshold in a given year (rewards) and a separate amount should be made available to hospitals that demonstrate the

most improvement in performance from year to year (incentives). The Commission could consider a matrix concept where those who perform the best and improve the most on a combined basis would receive additional funding. Nonetheless, the Commission, through the analysis of a workgroup (see section on Administration of Quality Initiative), should develop a mechanism that provides funding for both high scores and most improved scores.

The Steering Committee also recommends that the Commission consider implementing a process to determine which hospitals lack the infrastructure to perform well on adopted quality measures and provide some financial support to assist those hospitals in bolstering their infrastructure needs. Certainly a low score may be an indicator of the lack of means; however, a more robust examination should be conducted to determine whether a low score is the result of the lack of resources or inefficiency. The amount of funding available for infrastructure needs would be dependent on the total amount the Commission resolves to include for quality and should be a higher percentage of the total amount available for quality in the early years of the Initiative. If the Commission resolves to provide financial support for infrastructure, it should be initiated as soon as reasonably possible since it may take some time to elevate the level of quality health care provided at the eligible hospitals.

Before providing any financial infrastructure funding, the Commission should establish a policy that sets the terms of receiving such funding. The Commission should determine whether hospitals are eligible for infrastructure funding based on financial efficiency and productive efficiency. Therefore the Commission should consider both the appropriateness of resources and the appropriateness of processes and systems. While the Commission should develop the financial efficiency standards (appropriateness of resources) for eligibility, it may want to defer to a workgroup (identified later) to consider the level of productive deficiency (appropriateness of processes and systems) that would make a hospital eligible for financial support. In providing financial support the Commission should prospectively determine:

- how much may be provided for infrastructure;
- the duration of any funding;
- whether or not rates should be reduced, commensurate with the amount of financial support provided, if or when financial benefits are realized by the subject hospital;
- the potential status of any incentive funding for which the hospital may be eligible in the future; and
- how much savings are demonstrated.

Quality Measures and Indicators

If quality, from an HSCRC perspective, is the right care - at the right time - at the right price, the question that first arises is how does one measure quality? While there

have been various and sundry approaches to measuring quality, there seems to be no tried and true template for hospital services quality measurement. Therefore, it would be prudent for the Commission to examine the various approaches being utilized and determine what would work best to create the desired incentives for Maryland hospitals.

The goal of any approach should be to utilize the measures that most accurately reflect patient care outcomes. If a perfect consensus-based model were available to measure patient outcomes, the Committee would suggest using it; however, there tends to be data issues with outcome measures and the potential for extra-hospital factors to influence the data is clearly prevalent. If, for example, a robust, risk-adjusted interoperable data source were available that could track care through all patient care settings, an appropriately risk-adjusted outcomes test would be preferable. Based on the Committee's review, however, it appears that such an instrument is not currently available.

Quality measures in general are intended to show the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. In order to determine that degree, a tool assigns a quantity for the purpose of comparison. The Committee considered the following types of tools or measures for the HSCRC Quality Initiative:

- **Process measures** – Process measures are the most frequently used measure in quality initiatives today. The concept is to measure the frequency of treatments or processes conducted by health care staff that are proven through evidence-based clinical research to result in positive outcomes for patients. A process measure shows the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. There are both clinical process measures and productive process measures. The most publicized and common of the clinical process measures is the rate of providing aspirin upon admission and discharge for a patient with an acute myocardial infarction (AMI). An example of a productive process measure is the average waiting time in an emergency room.

Process measures are used in the MHCC Hospital Performance Guide as shown in a previous section and are included in the CMS demonstration project. A list of the CMS measures can be found in Attachment III.

- **Patient and performer safety measures** – Patient safety measures can be considered a subset of the process measures; however, the Committee distinguishes these in the sense that they take the more broad-based systems approach – or otherwise termed as “cross-cutting” measures. Patient safety measures build in safer processes to promote safer care for the patient and performer safety measure institute safer processes that encourage a safer work environment for providers (physicians, nurses and technicians). For example, a common patient safety measure is the existence and use of a standardized Computer Physician Order Entry System (CPOE). An appropriately used system has been shown to reduce the number of errors in providing care. A CPOE system requires various checks in the provision of care and reduces the chance of

human error during the process. While such information systems are highly desirable, they can also be extremely expensive to implement. Probably the most notable set of patient safety measures are the aforementioned Leapfrog Group measures (CPOE, ICU staffing requirements, evidence-based referrals).

- **Outcome measures** – Outcome measures include the rates of mortality, morbidity, infection rates, readmission rates. While some initiatives use outcome measures, they tend to be the most controversial. Concerns generally revolve around the accuracy of risk-adjustment when reporting the data and the level of influence other providers and circumstances (physicians, preventive care, patient behavior, etc.) may have on the data. Again, while accurate outcome measures would reflect the most direct relationship with patient quality, given the data weaknesses, initiatives tend to rely more on proxies such as process and patient safety measures.
- **Patient Satisfaction or Experience Surveys** – Another way that organizations measure their performance is through the use of patient satisfaction or patient experience surveys. Such surveys are provided to patients after leaving the hospital. Some argue that these types of surveys generally have less to do with the quality of care provided than the level of customer service the patient received. A study supported by AHRQ showed that that factors external to the doctor-patient interaction explained 36 percent of the variance in patient satisfaction with the visit overall and 24 percent of patient assessment of the quality of the direct doctor-patient encounter. Two organizational variables—waiting time to see the doctor and courtesy of the nonphysician office staff—explained 20 percent of the variance in patient responses to four questions used specifically to evaluate the quality of the physician's care (i.e., time spent with the doctor, information provided by the doctor, technical skills, and personal manner). Although organizations have refined experience surveys to glean more health related information, these surveys are more commonly used by physician groups to assess their performance on both a clinical and customer services basis

Many health plans, physician groups and organizations that use the aforementioned quality measures use a combination of them for scoring purposes. Process measures are most commonly used in report cards and pay-for-performance programs, patient safety is becoming more and more popular in pay-for-performance with the advent of the Leapfrog measures, and patient satisfaction and experience are generally used for internal evaluation but can be utilized as a public reporting tool.

The Steering Committee discussed the issue of the scope of measures that should be adopted. Concerns were expressed regarding the potential for hospitals to shift resources and staffing to those areas that are being measured to the detriment of care provided in other service areas. Others felt that if a hospital is dedicated to providing quality on stated measures, that the cognizance and dedication to quality will proliferate throughout the hospital as a whole. In other words, all ships will rise with the tide. Regardless, other “cross-cutting” measures could be implemented that would reflect quality across any specific clinical areas being measured.

The Steering Committee recommends that the Initiation Workgroup (discussed in section on Administration of Quality Initiative) examine the various process, patient and performer safety, outcome, and patient satisfaction and experience measures available and make recommendations on an initial set of measures for the HSCRC Initiative. The Examination Workgroup (discussed in a forthcoming section) should establish a process for the evaluation of any adopted process and system related measures to determine whether they are meeting the desired health care outcomes.

Data Collection

The process for collecting data on the MHCC measures is described in a previous section. In addition to the quality measures, the MHCC Guide also reports utilization information that is extracted from the HSCRC discharge database. While these data may be informative, their use to assess quality is limited.

If the Commission resolves to begin with process measures for which data are already available, the pay-for-performance process can move quite quickly since hospitals already have been reporting the data, have seen the results and understand the process. If other measures are selected, the startup could take somewhat longer. Under this circumstance, before data could be collected, the following would have to take place:

- \$ measures need to be selected;
- \$ data source needs to be determined;
- \$ data instructions must be developed, approved and implemented;
- \$ regulations must be drafted and approved (which can take about 6 months);
- \$ a bid board notice may be required to obtain a contractor for the collection of data or survey elements (6-10 months); and
- \$ auditability and verification issues should be resolved.

If new data were required on the outset of the HSCRC Initiative, Attachment VII summarizes the potential time frame under which the program could operate.

The Committee recommends that the Commission's data collection policy for the Quality Initiative should stress accomplishing the goals of the Initiative but, when practicable, limit the additional data collection and reporting burden on hospitals. Since there are several programs being implemented concurrently, the HSCRC and MHCC should work together to minimize that data burden.

In the longer term, as data collection is refined and as additional measures are added, the preference would be to have data reported directly to the Commission as part of a data abstract of sorts. Without knowing the future measures and data needs for those measures, it is not clear whether this concept would be feasible. If data would be available to the HSCRC and MHCC directly (administrative data), the Commissions would have a greater ability to manipulate the data and evaluate the correlation between process measures and outcome. It is important that the process measures periodically be evaluated to ensure that they are meeting the goals of the

Quality Initiative.

Scoring Measures

Quality programs across the country use varying methods to determine a score on the available measures. Many health plans and physician groups establish a composite scoring system that weighs the value of certain clinical measures, patient satisfaction survey results and investment in relevant information technology. Under other programs, such as the CMS project, scores and rewards are based on individual measures. As previously mentioned, CMS provides a bonus within a DRG for hospital that scored in specified deciles in that DRG.

The Steering Committee recommends that rewards be based on a composite scoring system that weighs measures on their ability to improve quality in the most efficient and effective manner. As new measures are initiated, they should be added to the overall weighting system as deemed appropriate by the Evaluation Workgroup (see Administration of Quality Initiative). The workgroups should also devise a mechanism to recognize outliers in scoring and address them. The CMS/Premier project may be a guide in this area.

Separate from paying for performance, the Steering Committee advises that public reporting, in and of itself, is also a valuable incentive. However, before any measures are reported, the Commission shall ensure that the data are accurate and that the measures are appropriate.

Administration of the Quality Initiative

The Steering Committee discussed how the Quality Initiative might be most effectively administered. **The Committee suggests that, to the extent practicable, an associate level position should be recruited and hired to manage the Quality Initiative.** The Associate Director would be the point person for the Initiative and should be supported by one analyst and a half of a current support staff member. The Associate Director would preferably have clinical, research and performance evaluation experience. This Associate Director would work with the workgroups (see below) to continue to evaluate measures and the impact of measures on outcomes.

As part of the workgroup activity it may be necessary to contract with an industry expert to provide advice on measures and outcomes. The associate director would oversee any such contracts or any grants that may be available for the initiative. The Steering Committee acknowledges that the State of Maryland is under a hiring freeze but is hopeful that an exemption would be granted for this position. This position is key to the smooth transition to paying for quality at Maryland hospitals. Since this position, along with all of the related expenses, would be supported through the existing administrative fees imposed on hospitals, the filling of this position would have no impact on the General Fund budget of the state. In fact, to the extent that the quality initiative reaches the goals set forth by the Steering Committee, quality can result in both

reductions in the costs of health care and improvement in the quality of life for Maryland residents.

The Committee also recommends that, in order for measures and data to be evaluated, two on-going workgroups be established. One workgroup (Initiation Workgroup) should be charged with making recommendations to the Commission on, at least, the following objectives:

- **whether or not it would be appropriate to begin the HSCRC Quality Initiative as a pilot project and, if deemed appropriate, details on how such a pilot project should be administered;**
- **selecting the initial set of measures for the Initiative;**
- **addressing data and reporting needs and requirements for the initial set of measures including internal auditing;**
- **implementing a composite scoring system that appropriately weighs the measures and addresses outlier and sample size issues;**
- **determining which measures shall be subject to rewards/incentives;**
- **establishing a rewarding mechanism that both rewards hospitals with high scores as well as those which improve the most from year to year; and**
- **if the Commission so directs, establishing the process and system standards (which would be one of the standards) in determining eligibility for financial infrastructure support.**

A second workgroup (Evaluation Workgroup) should be established to:

- **examine quality research, measures and outcomes nationally and make recommendations to the Commission/Staff on changes and additions;**
- **continue to review data needs and make recommendations for future changes;**
- **make recommendations on the most appropriate way to audit quality data internally and externally;**
- **evaluate whether the HSCRC Quality Initiative is meeting its goals in general and whether the measures are indicative of quality outcomes; and**
- **investigate the long-term feasibility of an interoperable data system that would allow for the horizontal and vertical assessment of patient outcomes across all modes of care.**

Commission Funding of the Initiative

The Steering Committee defers to the HSCRC on the amount of funding that should be set aside for the Quality Initiative. We understand that the HSCRC rate setting system is designed to be revenue neutral so any funding provided for rewards under the Initiative taken from the update factor would reduce the amount of funding available for updates for hospitals not receiving quality rewards. Some of the Committee members

expressed the desire to have the Initiative funded in a manner that would not reduce the update for any hospital nor adjust the current scaling mechanism in place for the update – in essence, funded through new money (see Attachment VI). In making this determination, the Commission should consider:

- whether there will be expected cost savings as a result of the Initiative (through a cost/benefit analysis);
- how the system is performing on the relative Medicare Waiver test;
- how the system is performing on the self-imposed tolerance standard (2% below the U.S. average on Net Patient Revenue per Equivalent Inpatient Admission); and
- whether all or portions of Commission investments in quality should be returned at some point.

As for imposing additional penalties on hospitals that perform poorly, there were mixed views on the Committee.

Rewards and incentives should be significant enough to encourage the behavior that will result in quality outcomes. It is essential that implemented measures be continually evaluated to ensure that they are achieving the desired health care and systemic outcomes. If the Commission decides to provide upfront infrastructure funding for hospitals that may need the resources to provide quality care, more funding would be required in the early years of the Initiative. In addition, if the Commission resolves to include information technology requirements as the basis for rewards, a higher level of rewards may be required based on the expense of such IT systems.

Conclusion

The Steering Committee appreciates this opportunity to provide input on this exciting, daunting and “cutting-edge” endeavor. We commend the Commission for having the foresight and fortitude to take on this task and hope that this report provides sufficient guidance in meeting your goals.

Attachments

Attachment I

Steering Committee on HSCRC Quality Initiative

Trudy Ruth Hall, M.D., Chairman

Samuel Lin, M.D., Ph.D. Vice-Chairman

Steve Bandeian, MAMSI

Beverly Collins, Delmarva Foundation

Denise Remus, Agency for Healthcare Research and Quality (AHRQ)

Enrique Martinez-Vidal, Maryland Health Care Commission

Peter W. Monge, Montgomery General Hospital

Steve Schimpff, M.D., University of Maryland Medical Center

Donald M. Steinwachs, Ph.D., Johns Hopkins School of Public Health

The Premier Hospital Quality Incentive Demonstration: Clinical Conditions and Measures for Reporting

The CMS/Premier quality measures are based on clinical evidence and industry recognized metrics. For example, they include:

- All ten indicators from the starter set of “The National Voluntary Hospital Reporting Initiative: A Public Resource on Hospital Performance.” (AHA Initiative)
- Twenty-seven indicators are National Quality Forum (NQF) indicators.
- Twenty-four indicators are CMS 7th Scope of Work indicators.
- Fifteen indicators are JCAHO Core Measures indicators.
- Three indicators are proposed by The Leapfrog Group.
- Four indicators are the Agency for Healthcare Research and Quality (AHRQ) patient safety indicators.

Clinical Conditions	Measures
Acute Myocardial Infarction (AMI)	<ol style="list-style-type: none"> 1. Aspirin at arrival ^{1,2,3,4, P} 2. Aspirin prescribed at discharge ^{1,2,3,4, P} 3. ACEI for LVSD ^{1,2,3,4,P} 4. Smoking cessation advice/counseling ^{1,2,3,P} 5. Beta blocker prescribed at discharge ^{1,2,3,4,P} 6. Beta blocker at arrival ^{1,2,3,4,P} 7. Thrombolytic received within 30 minutes of hospital arrival ^{1,2,10,P} 8. PCI received within 120 minutes of hospital arrival ^{1,5,10,P} 9. Inpatient mortality rate ^{1,3,6,O}
Coronary Artery Bypass Graft (CABG)	<ol style="list-style-type: none"> 10. Aspirin prescribed at discharge ^{5,P} 11. CABG using internal mammary artery ^{1,5,P} 12. Prophylactic antibiotic received within 1 hour prior to surgical incision ^{1,2,10,P} 13. Prophylactic antibiotic selection for surgical patients ^{1,2, 10,P} 14. Prophylactic antibiotics discontinued within 24 hours after surgery end time ^{1,2,10,P} 15. Inpatient mortality rate ^{7,O} 16. Post operative hemorrhage or hematoma ^{8,O} 17. Post operative physiologic and metabolic derangement ^{8,O}

Clinical Conditions and Measures for Reporting and Incentives (cont'd)

Clinical Conditions	Measures
Heart Failure (HF)	<p>18. Left ventricular function (LVF) assessment ^{1,2,3,4,P}</p> <p>19. Detailed discharge instructions ^{1,2,3,P}</p> <p>20. ACEI for LVSD ^{1,2,3,4,P}</p> <p>21. Smoking cessation advice/counseling ^{1,2,3,P}</p>
Community Acquired Pneumonia (CAP)	<p>22. Percentage of patients who received an oxygenation assessment within 24 hours prior to or after hospital arrival ^{1,2,3,4,P}</p> <p>23. Initial antibiotic consistent with current recommendations ^{1,2,10,P}</p> <p>24. Blood culture collected prior to first antibiotic administration ^{1,2,3,P}</p> <p>25. Influenza screening/vaccination ^{1,2,10,P}</p> <p>26. Pneumococcal screening/vaccination ^{1,2,3,4,P}</p> <p>27. Antibiotic timing, percentage of pneumonia patients who received first dose of antibiotics within four hours after hospital arrival ^{1,2,4,10,P}</p> <p>28. Smoking cessation advice/counseling ^{1,2,3,P}</p>
Hip and Knee Replacement⁹	<p>29. Prophylactic antibiotic received within 1 hour prior to surgical incision ^{1,2,9,10,P}</p> <p>30. Prophylactic antibiotic selection for surgical patients ^{1,2,9,10,P}</p> <p>31. Prophylactic antibiotics discontinued within 24 hours after surgery end time ^{1,2,9,10,P}</p> <p>32. Post operative hemorrhage or hematoma ^{8,9,O}</p> <p>33. Post operative physiologic and metabolic derangement ^{8,9,O}</p> <p>34. Readmissions 30 days post discharge ^{9,O}</p>

¹ National Quality Forum measure

² CMS 7th Scope of Work measure

³ JCAHO Core Measure

⁴ The National Voluntary Hospital Reporting Initiative (AHA Initiative)

⁵ The Leapfrog Group proposed measure

⁶ Risk adjusted using JCAHO methodology

⁷ Risk adjusted using 3MTM All Patient Refined DRG methodology

⁸ AHRQ Patient Safety Indicators and risk adjusted using AHRQ methodology.

⁹ Medicare beneficiaries only

¹⁰ CMS and/or JCAHO to align with this measure in 2004

^P Process measure

^O Outcomes measure

FACT SHEET

THE **LEAPFROG** GROUP
for **Patient Safety**
Rewarding **Higher Standards**
October 2003

The Leapfrog Group

The Leapfrog Group was founded by The Business Roundtable (BRT) and is supported by the BRT, The Robert Wood Johnson Foundation, Leapfrog members and others. Leapfrog works to initiate breakthrough improvements in the safety of healthcare for Americans. It is a voluntary program aimed at mobilizing employer purchasing power to alert America's health industry that big leaps in patient safety and customer value will be recognized and rewarded.

A 1999 report by the Institute of Medicine (IOM) found that up to 98,000 Americans die every year from preventable medical errors made in hospitals. The report recommended that large purchasers provide more market reinforcement for quality and safety. It is precisely because the scientific literature shows that so many medical errors are preventable that The Leapfrog Group is encouraging employers to take safety "leaps" forward with their employees, retirees and families by rewarding the hospitals that implement significant safety improvements.

The Leapfrog Group's growing consortium of Fortune 500 companies and other large private and public health care purchasers provide health benefits to approximately 34 million Americans in all 50 states; Leapfrog members and their employees spend billions of dollars on health care annually. Under Leapfrog, employers have agreed to base their purchase of health care on principles encouraging more stringent patient safety measures. The Leapfrog Group's initiatives have the potential to save up to 58,300 lives and prevent up to 522,000 medication errors each year (Birkmeyer, 2000).

The Mission

The Leapfrog Group's mission is to trigger a giant leap forward in quality, customer service and affordability of health care of all types by...

- Making the American public aware of a small number of highly compelling and easily understood advances in patient safety and
- Specifying a simple set of purchasing principles designed to promote these safety advances, as well as overall customer value.

This effort is rooted in four ideas:

1. American health care remains far below obtainable levels of basic safety and overall customer value.
2. The health industry would improve more rapidly if purchasers better recognized and rewarded superior safety and overall value.
3. Voluntary adherence to purchasing principles by a critical mass of America's largest employers would provide a large jump-start and encourage other purchasers to join.
4. These principles should not only champion superior overall value but also focus on a handful of specific innovations offering "great leaps" in basic patient safety to maximize media and consumer support and adoption by other purchasers.

Initial Leaps in Patient Safety

The Leapfrog Group identified and has since refined three hospital safety measures that are the focus of its health care provider performance comparisons and hospital recognition and reward. Based on independent scientific evidence, the initial set of safety measures includes: computer physician order entry; evidence-based hospital referral; and intensive care unit (ICU) staffing by physicians experienced in critical care medicine.

- **Computer Physician Order Entry (CPOE):** With CPOE systems, physicians enter medication orders via computer linked to prescribing error prevention software. CPOE has been shown to reduce serious prescribing errors in hospitals by **more than 50%**.
- **Evidence-Based Hospital Referral (EHR):** By referring patients needing certain complex medical procedures to hospitals offering the best survival odds based on scientifically valid criteria — such as the number of times a hospital performs these procedures each year — research indicates that a patient's risk of dying could be reduced by **more than 30%**.
- **ICU Physician Staffing (IPS):** Staffing ICUs with physicians who have credentials in critical care medicine has been shown to reduce the risk of patients dying in the ICU by **more than 10%**.

This list is based on four primary criteria. (1) There is overwhelming scientific evidence that these safety leaps will significantly reduce danger. (2) Their implementation by the health industry is feasible in the near term. (3) Consumers can readily appreciate their value. (4) Health plans, purchasers or consumers can easily ascertain their presence or absence in selecting among health care providers. These safety leaps are a practical first step in using purchasing power to improve patient safety.

Leapfrog's member companies agree to adhere to the following four purchasing principles in buying health care for their enrollees:

- 1) Educating and informing enrollees about patient safety and the importance of comparing health care provider performance, with initial emphasis on the Leapfrog safety measures.
- 2) Recognizing and rewarding health care providers for major advances in protecting patients from preventable medical errors.
- 3) Holding health plans accountable for implementing the Leapfrog purchasing principles.
- 4) Building the support of benefits consultants and brokers to utilize and advocate for the Leapfrog purchasing principles with all of their clients.

Because the health industry needs time to meet these standards, Leapfrog purchasers are working with the provider community to arrive at *aggressive but feasible* target dates for application of the purchasing principles and implementation of Leapfrog's recommended patient safety practices.

Current Progress

The Leapfrog Group began collecting data in 2001 by querying urban and suburban hospitals in six regions and has now expanded to 22 regions. These 22 regions account for almost half of the U.S. population and encompass 948 urban and suburban hospitals. Fifty-nine percent (557) of those hospitals have responded thus far. In addition, more than 250 hospitals outside of the 18 regions have responded to the survey on their own initiative, without a formal request from Leapfrog. The data queried cover the three proven safety measures.

Research shows that if urban and suburban hospitals implement these three safety measures, in addition to the nearly 60,000 lives that could be saved and more than a half a million serious medication errors that could be prevented each year, approximately \$9.7 billion could be saved annually.



**Maryland Hospital Association
Quality Indicator Project^â**

**List of Performance Measures
*Acute Care Indicator Set***

Inpatient Acute Care Indicators

Indicator 1a: Device-Associated Infections in Intensive Care Units

*The following measures are available for the APICU, CCU, MICU, M/S ICU, & SICU
Central Line-Associated Bloodstream Infections
Ventilator-Associated Pneumonia
Symptomatic Indwelling Urinary Catheter-Associated UTIs

Indicator 1b: Device Use in Intensive Care Units

*The following measures are available for the APICU, CCU, MICU, M/S ICU, & SICU
Central Line Use
Ventilator Use
Indwelling Urinary Catheter Use

Indicator 2a: Surgical Site Infections

Surgical Site Infections in Chest Incision Only CABG Patients (classified by NNIS Risk Index)
Surgical Site Infections in Chest and Donor Site Incision CABG Patients (classified by NNIS Risk Index)
Surgical Site Infections in Hip Arthroplasty Patients (classified by NNIS Risk Index)
Surgical Site Infections in Knee Arthroplasty Patients (classified by NNIS Risk Index)
Surgical Site Infections in Abdominal Hysterectomy Patients (classified by NNIS Risk Index)

Indicator 2b: Prophylaxis for Surgical Procedures

*Prophylaxis, Prophylaxis Prior to Incision, and Prophylaxis Lasting 24 Hours or Less can be tracked for the following surgical patients:
CABG
Hip Arthroplasty
Knee Arthroplasty
Appendectomy
Vaginal Hysterectomy
Abdominal Hysterectomy



Indicator 3: Inpatient Mortality

Total Inpatient Mortality

Mortality for DRG 014—Specific Cerebrovascular Disorders Except Transient Ischemic Attack

Mortality for DRG 079—Respiratory Infections and Inflammations, Age > 17 with CC

Mortality for DRG 088—Chronic Obstructive Pulmonary Disease

Mortality for DRG 089—Simple Pneumonia, Age > 17 with CC

Mortality for DRG 127—Heart Failure and Shock

Mortality for DRG 174—GI Hemorrhage with CC

Mortality for DRG 316—Renal Failure

Mortality for DRG 416—Septicemia, Age > 17

Mortality for DRG 475—Respiratory System Diagnosis with Ventilator Support

Mortality for DRG 489—HIV with Major Related Condition

Mortality for DRG XXX—All Other DRGs

Indicator 4: Neonatal Mortality

Neonatal Mortality for Direct Admissions—Birth Weight ≤ 750 g

Neonatal Mortality for Direct Admissions—Birth Weight 751g to 1,000g

Neonatal Mortality for Direct Admissions—Birth Weight 1,001g to 1,800g

Neonatal Mortality for Direct Admissions—Birth Weight $\geq 1,801$ g

Neonatal Mortality for Transfers-in—Birth Weight ≤ 750 g

Neonatal Mortality for Transfers-in—Birth Weight 751g to 1,000g

Neonatal Mortality for Transfers-in—Birth Weight 1,001g to 1,800g

Neonatal Mortality for Transfers-in—Birth Weight $\geq 1,801$ g

Indicator 5: Perioperative Mortality

Perioperative Mortality for ASA Class 1

Perioperative Mortality for ASA Class 2

Perioperative Mortality for ASA Class 3

Perioperative Mortality for ASA Class 4

Perioperative Mortality for ASA Class 5

Total Perioperative Mortality

Indicator 6: Management of Labor

Primary C-sections

Repeat C-sections

Total C-sections

Vaginal Births After C-section (VBAC)

Trial of Labor Success



Indicator 7: Unscheduled Readmissions

Unscheduled Readmissions within 15 Days (Total)

Unscheduled Readmissions within 15 Days for:

DRG 079—Respiratory Infections and Inflammations, Age > 17 with CC or a related condition

DRG 088—Chronic Obstructive Pulmonary Disease or a related condition

DRG 089—Simple Pneumonia, Age > 17 with CC or a related condition

DRG 127—Heart Failure and Shock or a related condition

DRG 140, 143—Angina, Chest Pain or a related condition

Unscheduled Readmissions within 31 Days (Total)

Unscheduled Readmissions within 31 Days for:

DRG 079—Respiratory Infections and Inflammations, Age > 17 with CC or a related condition

DRG 088—Chronic Obstructive Pulmonary Disease or a related condition

DRG 089—Simple Pneumonia, Age > 17 with CC or a related condition

DRG 127—Heart Failure and Shock or a related condition

DRG 140, 143—Angina, Chest Pain or a related condition

Indicator 8: Unscheduled Admissions Following Ambulatory Procedures

Unscheduled Inpatient Admissions Following Cardiac Catheterization

Unscheduled Inpatient Admissions Following Digestive, Respiratory, or Urinary System Diagnostic Endoscopies

Unscheduled Inpatient Admissions Following All Other Operative Procedures

Unscheduled Observation Admissions Following Cardiac Catheterization

Unscheduled Observation Admissions Following Digestive, Respiratory, or Urinary System Diagnostic Endoscopies

Unscheduled Observation Admissions Following All Other Operative Procedures

Total Unscheduled Inpatient and Observation Admissions Following Cardiac Catheterization

Total Unscheduled Inpatient and Observation Admissions Following Digestive, Respiratory, or Urinary System Diagnostic Endoscopies

Total Unscheduled Inpatient and Observation Admissions Following All Other Operative Procedures

Indicator 9: Unscheduled Returns to an Intensive Care Unit

Unscheduled Returns to an Intensive Care Unit

Indicator 10: Unscheduled Returns to the Operating Room

Unscheduled Returns to the Operating Room



Indicator 11: Isolated Coronary Artery Bypass Graft (CABG) Perioperative Mortality

Observed Isolated CABG Perioperative Mortality, ASA Class I
Observed Isolated CABG Perioperative Mortality, ASA Class II
Observed Isolated CABG Perioperative Mortality, ASA Class III
Observed Isolated CABG Perioperative Mortality, ASA Class IV
Observed Isolated CABG Perioperative Mortality, ASA Class V
Total Observed Isolated CABG Perioperative Mortality for all ASA Classes

Indicator 12: Physical Restraint Use

Physical Restraint Events
Inpatients Experiencing Physical Restraint Events
Patients with Multiple Physical Restraint Events
Physical Restraint Events Lasting ≤ 1 Hour
Physical Restraint Events Lasting > 1 Hour but ≤ 4 Hours
Physical Restraint Events Lasting > 4 Hours but ≤ 8 Hours
Physical Restraint Events Lasting > 8 Hours but ≤ 16 Hours
Physical Restraint Events Lasting > 16 Hours but ≤ 24 Hours
Physical Restraint Events Lasting > 24 Hours
Physical Restraint Events Due to Cognitive Disorder
Physical Restraint Events to Facilitate Treatment
Physical Restraint Events Due to Risk of Falling
Physical Restraint Events Due to Disruptive Behavior
Physical Restraint Events for All Other Reasons
Physical Restraint Events Initiated Between 7:00 am and 2:59 pm
Physical Restraint Events Initiated Between 3:00 pm and 10:59 pm
Physical Restraint Events Initiated Between 11:00 pm and 6:59 am

Indicator 13: Falls

Documented Falls
Falls Due to Patient Health Status
Falls Due to Treatment, Medication, or Anesthesia
Falls Due to Environmental Hazards
Falls Due to All Other Reasons
Falls Resulting in Injury
Falls with Severity Score 1
Falls with Severity Score 2
Falls with Severity Score 3
Repeat Falls



Indicator 14a-e: Complications following Sedation and Analgesia in Intensive Care Units, Cardiac Cath Labs, Radiology Suites, Endoscopy Suites, and Emergency Departments

S&A Episodes Categorized by ASA Class and ASA Class Not Assigned

S&A Episodes with Recorded Oxygen Saturation

S&A Episodes with Mild Oxygen Desaturation

S&A Episodes with Severe Oxygen Desaturation

S&A Episodes where Reversal Agents were Administered

S&A Episodes where Aspiration Occurred

S&A Episodes where Airway Obstruction Occurred

S&A Episodes with BP_{sys} Drop > 20%

S&A Episodes where Anesthesia Staff were Involved

S&A Episodes with Unintentional Loss of Consciousness

Acute Care Ambulatory Indicators

Indicator A1: Unscheduled Returns to the Emergency Department

Unscheduled Returns within 0-24 Hours

Unscheduled Returns within 0-24 Hours Resulting in an Inpatient Admission

Unscheduled Returns within 0-24 Hours Resulting in an Observation Admission

Unscheduled Returns within 0-48 Hours

Unscheduled Returns within 0-48 Hours Resulting in an Inpatient Admission

Unscheduled Returns within 0-48 Hours Resulting in an Observation Admission

Unscheduled Returns within 0-72 Hours

Unscheduled Returns within 0-72 Hours Resulting in an Inpatient Admission

Unscheduled Returns within 0-72 Hours Resulting in an Observation Admission

Indicator A2: Length of Stay in the ED

Length of Stay ≤ 2 Hours

Patient Discharged Home with a LOS ≤ 2 Hours

Patient Admitted as Inpatient with a LOS ≤ 2 Hours

Patient Transferred to Inpatient Observation Status with a LOS ≤ 2 Hours

Patient Transferred to Another Acute Care Facility with a LOS ≤ 2 Hours

All Other Patient Dispositions with a LOS ≤ 2 Hours

Length of Stay > 2 Hours but ≤ 4 Hours

Patient Discharged Home with a LOS > 2 Hours but ≤ 4 Hours

Patient Admitted as Inpatient with a LOS > 2 Hours but ≤ 4 Hours

Patient Transferred to Inpatient Observation Status with a LOS > 2 Hours but ≤ 4 Hours

Patient Transferred to Another Acute Care Facility with a LOS > 2 Hours but ≤ 4 Hours



All Other Patient Dispositions with a LOS > 2 Hours but \leq 4 Hours

Length of Stay > 4 Hours but \leq 6 Hours

Patient Discharged Home with a LOS > 4 Hours but \leq 6 Hours

Patient Admitted as Inpatient with a LOS > 4 Hours but \leq 6 Hours

Patient Transferred to Inpatient Observation Status with a LOS > 4 Hours but \leq 6 Hours

Patient Transferred to Another Acute Care Facility with a LOS > 4 Hours but \leq 6 Hours

All Other Patient Dispositions with a LOS > 4 Hours but \leq 6 Hours

Length of Stay > 6 Hours

Patient Discharged Home with a LOS > 6 Hours

Patient Admitted as Inpatient with a LOS > 6 Hours

Patient Transferred to Inpatient Observation Status with a LOS > 6 Hours

Patient Transferred to Another Acute Care Facility with a LOS > 6 Hours

All Other Patient Dispositions with a LOS > 6 Hours

Indicator A3: ED X-ray Discrepancies and Patient Management

X-ray Discrepancies Requiring a Change in Patient Management

Indicator A4: Patients Leaving the ED Before Treatment is Complete

Patients Leaving the ED Before Treatment is Complete

Indicator A5: Cancellation of Ambulatory Procedures

Cancellation of Scheduled Ambulatory Cardiac Catheterizations

Cancellation of Ambulatory Cardiac Catheterizations by the Facility

Cancellation of Ambulatory Cardiac Catheterizations by the Patient

Cancellation of Scheduled Ambulatory Diagnostic Digestive System Endoscopies

Cancellation of Ambulatory Diagnostic Digestive System Endoscopies by the Facility

Cancellation of Ambulatory Diagnostic Digestive System Endoscopies by the Patient

Cancellation of Scheduled Other Ambulatory Procedures

Cancellation of Other Ambulatory Procedures by the Facility

Cancellation of Other Ambulatory Procedures by the Patient

Maryland Hospital Report Card Data Flow



Attachment VI

Summary of Issue Responses by Steering Committee

	Group I	Group II	Group III	Group IV	Group V	Group VI
Mission	“...establish rates for MD hospitals to <u>encourage hospitals to provide health care services in a manner that improves quality of care.</u> ”	“...to utilize the Commission’s statutory authority to <u>provide financial incentives to improve quality of care at and efficiency and effectiveness of those hospitals.</u> ”	“...to utilize the Commission’s <u>hospital rate setting authority</u> to enhance the quality of care at Maryland hospitals.”	“...to <u>alter the Commission’s rate structure to provide incentives for hospitals to improve quality of care</u> ”	“...to utilize the Commission’s <u>hospital rate setting authority</u> to enhance the quality of care at Maryland hospitals.” - Add a section summarizing Commission’s statutory authority	Put the notion of the improvement of quality first in the statement: “...to utilize the Commission’s authority to <u>enhance the quality of care provided @ MD hospitals by developing a program of rates that incentivises all hospitals.</u> ”
Vision	Don’t need a vision – Mission is clear enough	“...positive health outcomes for their <u>patients including the protection of patients from adverse health events in the hospital.</u> ”	Concern about use of term “maximize”	“...environment where hospitals <u>are efficient and provide a high level of quality care as measured by the achievement of specified goals.</u> ” Quality should be right care @ the right price.	Concern about use of term “maximize”	“optimize” rather than “maximize” and “...to provide <u>the highest possible quality of care for their patients and the community.</u> ”
Goals	Delete #1 – in mission #2 – question about use of “outcomes”. #3 - ...data on <u>identified measures</u> ” #4 “become a [catalyst] <u>model</u> ”	#1 – “maximizes quality of care <u>consistent with evidence-based clinical research.</u> ” #2- add to end “ <u>and recognize the protection of patients from adverse health events.</u> ”	#1-“provide appropriate financial <u>support to assist hospitals improve quality of care</u> ”. Notion of infrastructure support. Is there enough for an adequate incentive. #3- add “ <u>and explore new ways to access appropriate data.</u> ” #4– “become a [catalyst] <u>model</u> ”. Very long term goal	#1-“ <u>work in collaboration with MD hospitals...provide health care services in a manner that is efficient</u> and maximizes the quality of care.” #2- ...that reflect the health <u>patient care outcomes and the delivery of quality care services</u> at Maryland hospitals. #3- “ <u>collect data that will support the generation of accurate and reliable data measurement.</u> ” #4- “become a catalyst for <u>enhancing</u> health care quality that transcends the hospital setting.”	#1-“provide appropriate financial <u>support to assist hospitals improve quality of care</u> ”. Notion of infrastructure support. Is there enough for an adequate incentive. #4-- delete	New #1 – <u>maximize quality and safety in hospital-based care in Maryland.</u> Delete existing #4

Attachment VI

#1 Incentive or Reward	<ul style="list-style-type: none"> -hybrid reward and incentive -provide reward and penalty to low performers -consider a process for hospitals with special resource needs. 	<ul style="list-style-type: none"> - hybrid reward and incentive. -consider providing upfront infrastructure \$ with a payback in future based on savings -some should get more, some less and public reporting will provide additional incentives 	<ul style="list-style-type: none"> -hybrid reward and incentive. -system should not be punitive. Will create friction 1b- must be revenue neutral 	<ul style="list-style-type: none"> -consider providing upfront infrastructure \$ with a payback in future based on savings -consider not being rev. neutral for a period of time. -require an action plan for low performers before penalizing them 	<ul style="list-style-type: none"> -hybrid reward and incentive. - must be revenue neutral 	<ul style="list-style-type: none"> -should not penalize hospitals that can least afford it. -should provide funding for infrastructure for CPOE, bar coding, etc. once implemented.
#2 Measures	<ul style="list-style-type: none"> -short-term consider what is available like CMS and MHCC measures (process, outcome) -long-term more cross-cutting measures like patient safety -potential for just reporting outcome measures w/no money attached 	<ul style="list-style-type: none"> -suggest starting w/ available process measures (MHCC/JCAHO). Collect some outcome data but don't reward initially. Also start tracking patient safety measures 	<ul style="list-style-type: none"> -rewarding on outcomes data will be controversial -patient safety is important but should wait on patient satisfaction. 	<ul style="list-style-type: none"> -use measures where data is currently being reported like JCAHO or CMS measures. -establish composite score of all with a weighting mechanism that can change over time 	<ul style="list-style-type: none"> -OK with outcome measures. - patient satisfaction measures make sense -unrewarded measures should be at least publicly disclosed. 	<ul style="list-style-type: none"> -should start with available process measures -Leapfrog type measure are effective and appropriate -patient satisfaction is not reflective of quality and should not be used for payment purposes. -data reporting is helpful whether rewarded or not
#3 Data	<ul style="list-style-type: none"> -concerns about use of self-reported survey data for payment purposes. -timeline – to early to tell but sooner the better 	<ul style="list-style-type: none"> Caution on relying on data that is processed through other organizations. Should get raw data set and edited data set and compare. 	<ul style="list-style-type: none"> Concerns about attaching dollars to patient survey data 	<ul style="list-style-type: none"> CMS project- Premier is collecting mixture of medical record data and claims data. -process measure need to be extracted from medical record. -consider implementing ghost patient identifier for readmission rates -timeline is feasible if using already collected data and could expedite. 	<ul style="list-style-type: none"> Concerns about attaching dollars to patient survey data but can be useful for observation and should be publicly disclosed. 	<ul style="list-style-type: none"> -keep focus on inpatient hospital issues and not moving to interoperable data system -comfortable with hospital reported survey data or administrative data but depends on measures

Attachment VI

#4 Staffing and Operation	-like staffing proposal and consult where necessary		Staffing needs depends on extent to which data is readily available. If not readily available, will need assistance from a vendor. Work with MHCC too. -Workgroups – like continuous look at measures. Make sure financial experts are included. -timeline could be shorter if based on currently collected data.	Staffing needs depends on extent to which data is readily available. If new data, will needed additional resources down the road. -the key is getting the right person -workgroups should marry data collection and measurement. One for short-term and one for long-term. -make sure other HSCRC staff stays involved		-staffing makes sense if data is available for measures (like MHCC measures) -Assoc. Dir. Should be R.N., Physician, or PhD. With focus on quality not compliance -should incorporate continued look at payment design – whether incentives are appropriate.
#5 Funding			Rewards should be based on a composite score not just by DRG.	-Rewards should be on a composite score basis with appropriate weighting between measures. Never been done on a public basis before.		-Composite or individual – depends on measure adopted. - should provide funding for infrastructure (for CPOE, bar coding, etc.) once implemented.

Attachment VII

Draft Time Line for Quality Initiative Implementation

October 2003 - January 2004

- \$ Steering Committee meets and develops recommendations for Commission**
- \$ Commission approves/amends recommendations**
- \$ Work Plan finalized for Initiative**

February 2004 - September 2004

- \$ Work Groups convene and begin to make recommendations for measures, etc.**
- \$ Send data reporting instructions sent to all hospitals for initial set of measures**

January 2005 - December 2005

- \$ Work Groups continue to meet - Potential for additional measures to be added for 2006**
- \$ Collection of Data for initial set of measures (beta test)**
- \$ Analyze and clean data quarterly**
- \$ Send revised data reporting instructions for 2006 based on issues found during reporting period and any additional measures**
- \$ Report results to hospitals (not publically)**

January 2006 - December 2006

- \$ Analyze and clean data collected in CY 2005, report annual results to hospitals**
- \$ Collect data on adopted measures**
- \$ Analyze and clean data quarterly**
- \$ Send revised reporting instructions for 2007**

January 2007 - July 2007

- \$ Analyze and clean data collected in CY 2006, report annual results to hospitals**
- \$ Commission determines update and amount available for rewards/incentives in April**
- \$ Rewards/Incentives included in rates beginning July 1, 2007 based on data collected in CY 2006**
- \$ Collect data on adopted measures**
- \$ Send revised reporting instructions**